

REMARKS

Claims 1, 4, and 12 were rejected as assertedly anticipated by Morris, U.S. 5,173,434. The Examiner appears to cite Morris for the general method of fluorescence quenching. Morris describes as background a method whereby a synthetic substrate is generated which contains both a quenching group and a fluorescing group. Addition of an enzymatic analyte cleaves the quenching group from the substrate, increasing the sample's fluorescence in proportion to the concentration of the enzyme. See column 2, lines 51-63 and column 3, lines 11-14.

The claims do not describe quenching. As noted in paragraph 10 of the specification, absorption of emitted light by an indicator – *i.e.*, quenching, is a different mechanism for decreasing fluorescence than a physical interaction between the indicator and the light emitting moiety such that light emission is inhibited. The claims as previously amended are limited to those embodiments where an indicator physically interacts with the light emitting moiety. In the present invention, the light emitting moiety is not located on a substrate with a quenching group, but is present in a reaction mixture which mixture does not quench fluorescence. Addition of the analyte to the mixture generates an indicator, which indicator then physically interacts with the light emitting moiety to decrease, not increase, light emission. This physical interaction does not include cleavage of a quenching group from a synthetic substrate. Instead, the physical interaction occurs through the mechanisms of collision of the indicator with the light emitting moiety, or bonding of the indicator to the light emitting moiety with a concomitant reduction in fluorescence. This is not quenching as described in Morris.

The method of the present invention clearly differs from that of Morris in other ways. Morris describes a method wherein a fluorescent moiety is embedded in an inert matrix and isolated from the reaction mixture. Addition of an analyte to the reaction mixture quenches fluorescence by absorbing the emitted light at a distance or blocking transmission of the excitation wavelength. The analyte is never placed into direct contact with the fluorescent moiety. See column 4, lines 25-32. In contrast, claim 1 describes a method whereby the analyte is added to a reaction mixture containing a light emitting moiety and other reagents. The reagents and the analyte generate an

indicator which then inhibits light emission by interacting directly with the light emitting moiety as described above, not by quenching through absorption or turbidity. This method is considerably different from that of Morris, which does not involve such direct interaction. Morris therefore does not anticipate the invention as claimed.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 527832000420. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: August 8, 2007

Respectfully submitted,

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